

REMARKS

Claims 1-21 are pending in the application. Claims 1-21 were rejected.

The foregoing claim amendments are of a clerical nature and are for purposes of clarity in antecedents or terms. No new matter is introduced.

Regarding Rejections under 35 U.S.C. § 102(e)

Claims 1-6, 8-13 and 15-20 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Balakrishnan (U.S. Patent 6,233,559).

The present invention relates to a method and apparatus for determining which speech-enabled application should receive a spoken utterance in a multi-context speech enabled environment. The invention apparatus in one embodiment includes a context manager and a message handler. The context manager evaluates contexts for speech enabled applications based upon an access characteristic. The message handler receives a representation of a spoken utterance. The context manager receives the representation of the spoken utterance from the message handler and directs the representation of the spoken utterance to a selected speech enabled application based upon the evaluation of the contexts. The context manager, prior to evaluating the contexts, may create the contexts for the speech enabled applications in the speech enabled environment. (See Specification, page 3, line 26 to page 4, line 6.) The speech enabled applications do not have to be running (i.e., currently performing on a computer system) in order for the context manager to evaluate the contexts based upon the access characteristic. For example, the user utters a request to take a letter, and a word processing application starts up (i.e., is launched by the invention system) if it is not already running. (See Specification, page 3, lines 17-20.)

In another example of the present invention, a user utters a phrase such as "print the first message" or "print the first appointment," the context manager readily figures out the intended target application (an email application versus a calendar application) for the uttered sentence. If the utterance is "print it" however, both applications are capable of accepting the utterance. The context manager therefore has to make a choice by referring to the context list of applications in order of recency of access (i.e., an access characteristic). The context manager tests the

utterance against these contexts (indicated by the contexts in the context list) in priority order, and passes the commands on to the first application that has a grammar (context) that will accept the phrase. (See Specification, page 13, line 13 to page 14, line 3.) Even if the chosen application is not running, the application will be launched.

Accordingly, key to the present invention is the “evaluating the plurality of contexts for speech enabled applications based upon an access characteristic” (emphasis added). Such is recited in base claims 1, 8 and 15.

In contrast to the present invention, the Balakrishnan patent does not provide evaluation of contexts based upon an access characteristic. Instead, Balakrishnan uses a context-dependent arbitrator to assign priority to applications. The context-dependent arbitrator gives a higher priority to an in-focus application than an out of focus application. A higher threshold level of confidence in recognition must be exceeded to direct input speech to an out-of-focus application and a lower threshold level of confidence will permit input speech to be directed to the current (in focus) application (col. 4, lines 52-58). In this way, Balakrishnan evaluates contexts of only running applications, based on focus (i.e., applications that are running either in or out of focus).

This is unlike Applicants’ system, which uses an access characteristic to evaluate a plurality of contexts of all applications in the system whether the application is running or not running (i.e., not capable of being in or out of focus). Thus, Balakrishnan does not imply, suggest or otherwise disclose the claimed “*evaluating a plurality of contexts for speech enabled applications based upon an access characteristic*”. As such, the present invention as claimed in base claims 1, 8 and 15 is not believed to be anticipated by Balakrishnan. Claims 2-6 are dependant on Claim 1, Claims 9-13 are dependant on Claim 8, and Claims 16-20 are dependant on Claim 15. Thus, for at least the same reasons, dependent Claims 2-6, 9-13 and 16-20 should be allowable over the cited art.

According to the foregoing, the rejection under 35 U.S.C. 102(e) in view of Balakrishnan should be withdrawn. Claims 1-6, 8-13 and 15-20 should be allowable.

Regarding Rejections under 35 U.S.C. § 103(a)

Claims 7, 14 and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Balakrishnan. Claim 7 depends from Claim 1. Claim 14 depends from Claim 8, and Claim


21 depends from Claim 15. Thus, the foregoing arguments regarding base Claims 1, 8 and 15 apply here, and find dependent Claims 7, 14 and 21 to be novel, unobvious and thus allowable for the same reasons.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (Claims 1-21) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 
Mary Lou Wakimura
Registration No. 31,804
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 7-29-04